**🧾 🎯 Role title:** **Drone Development Team Lead – Barcelona Smart Drone Challenge 2019  
📍 Location:** Aero-association Split, Ruđera Boškovića 32, HR-21000 Split, Croatia  
**📅 Project Timeline:** Dec 2018 – May 2019  
🎥 YouTube Demo: Not available  
📦 GitHub: <https://github.com/IvanSicaja/2018.12.01_GitHub_Barcelona-Smart-Drone-Challenge-2019>   
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🏷️ My Personal Profiles: ⬇︎  
🎥 Video Portfolio: To be added  
📦 GitHub Profile: <https://github.com/IvanSicaja>  
🔗 LinkedIn: <https://www.linkedin.com/in/ivan-si%C4%8Daja-832682222>  
🎥 YouTube: <https://www.youtube.com/@ivan_sicaja>  
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📚🔍 **Project Description:**

💡 **Role/Project Description:**  
As **Team Lead** for the **Barcelona Smart Drone Challenge 2019**, I aimed **to coordinate multidisciplinary teams** including the **Battery & Propulsion Systems team**, **Radio Communication & Signal Encryption team**, **Drone Frame Design team**, **Autopilot team**, **Object Detection team**, and **Delivery team**, ensuring seamless integration across all **UAV subsystems**:

* **To lead** the **Battery & Propulsion Systems team** to design and optimize **motors, propellers, batteries, and ESCs** for endurance and efficiency using **eCalc.ch**.
* **To implement** **secure digital radio communication** with **signal encryption**, coordinating the **Radio Communication & Signal Encryption team**.
* **To supervise** the **Drone Frame Design team** in creating a **lightweight, aerodynamic, and durable structure**.
* **To guide** the **Autopilot team** in integrating **ArduPilot Mission Planner, Pixhawk, and Odroid**, enabling **fully autonomous flight**.
* **To oversee** the **Object Detection team** for accurate **ground target recognition**.
* **To coordinate** the **Delivery team**, ensuring precise and reliable **autonomous package delivery**.
* **To ensure** smooth **multidisciplinary collaboration**, balancing technical innovation with competition constraints.

⚠️ **Note:**  
Due to **insufficient sponsorship**, the team **did not participate in the tournament**.

🔧 **Tech Stack:**  
**Drone Development, Battery & Propulsion Systems, eCalc.ch, Digital Radio Communication, Signal Encryption, Drone Frame Design, ArduPilot Mission Planner, Pixhawk, Odroid, Autonomous Flight, Object Detection, Target Recognition, Package Delivery**

📣 **Hashtags:**  
# #**DroneDevelopment** #**UAV** #**AutonomousSystems** #**PropulsionDesign** #**BatterySystems** #**RadioCommunication** #**SignalEncryption** #**FrameDesign** #**ArduPilot** #**Pixhawk** #**Odroid** #**SmartDroneChallenge** #**TeamLead** #**AerospaceEngineering** #**AutonomousFlight** #**ObjectDetection** #**PackageDelivery**